

G002
Acrylamide [79-06-1]

Results of Testing

Chemical Name	CAS No.	Study Code/Type	Protocol/Guideline	Species	Exposure	Dose/Concentration	No. per Group	Results	Reference
Acrylamide	79-06-1	HECTOXCARC Chronic/oncogenicity toxicity (Voluntary test)	Non-TSCA Protocol/ Guideline (see docket# OPTS- 47003B)	rats	2 year, oral (drinking water)	0, 0.01, 0.1, 0.5, 2.0 mg/kg/dy	60 male; 60 female	Observations of test animals receiving 2.0 mg/kg/day included an increase in mortality (about the 21st month) and degeneration of the peripheral nerves. The females of this group had increased tibial nerve degeneration. In addition, this same dose level produced an increase in tumor incidence in both males and females. In the female, the sites of increased tumors included: mammary gland (benign and malignant), clitoral gland (benign), uterus (malignant), and the oral cavity (benign). In the males and females, the site of increased tumors were at the thyroid gland (malignant and benign). Males receiving 0.5 mg/kg/day had a significant increase in the incidence of scrotal mesothelioma (malignant).	OTS0507273 50 FR 5421; 2/6/85
Acrylamide	79-06-1	EEATOX Aquatic toxicity (Voluntary test)	Non-TSCA Protocol/ Guideline (see docket# OPTS- 47003B)	Bluegill sunfish	96 hr, flow-through	14, 35, 81, 150, 350 mg/L	Not specified	The no-observed-effect concentration (NOEL) was 35 mg/L. The LC ₅₀ value with its corresponding 95% confidence interval was 100 mg/L and 81 to 150 mg/L, respectively. Behavioral observations included surfacing and loss of equilibrium of the test animals, followed by death.	OTS0507314 48 FR 34119; 7/27/83
Acrylamide	79-06-1	EEATOX Aquatic toxicity (Voluntary test)	Non-TSCA Protocol/ Guideline (see docket# OPTS- 47003B)	Fathead minnow	96 hr, flow-through	21, 41, 77, 160, 340 mg/L	Not specified	The no-observed-effect concentration was 41 mg/L. Observations included loss of equilibrium and surfacing of the test animals, followed by death. The LC ₅₀ value with its corresponding 95% confidence interval was 120 mg/L and 77 to 160 mg/L, respectively.	OTS0507315 48 FR 34119; 7/27/83
Acrylamide	79-06-1	EEATOX Aquatic toxicity (Voluntary test)	Non-TSCA Protocol/ Guideline (see docket# OPTS- 47003B)	Rainbow trout	96 hr, flow-through	17, 37, 74, 150, 370 mg/L	Not specified	The no-observed-effect concentration was 37 mg/L. Observations included loss of equilibrium and surfacing of the test animals, followed by death. The LC ₅₀ value with its corresponding 95% confidence interval was 110 mg/L and 74 to 150 mg/L, respectively.	OTS0507317 48 FR 34119; 7/27/83
Acrylamide	79-06-1	EEATOX Aquatic toxicity (Voluntary test)	Non-TSCA Protocol/ Guideline (see docket# OPTS- 47003B)	<i>Daphnia magna</i>	48 hr, flow-through	15, 25, 60, 110, 270 mg/L	Not specified	Observation included migration of test animals to the bottom of test chambers with little movement until death. The no-observed-effect concentration was 60 mg/L. The LC ₅₀ and its corresponding 95% confidence interval were determined to be 160 mg/L and 110 to 270 mg/L, respectively.	OTS0507316 48 FR 34119; 7/27/83
Acrylamide	79-06-1	EEATOX Aquatic toxicity (Voluntary test)	Non-TSCA Protocol/ Guideline (see docket# OPTS- 47003B)	Mysid shrimp	96 hr, flow-through, seawater	5.21, 13.58, 35.50, 78.68, 160.90 ppm	Not specified	Mortality of Mysid shrimp increased as the duration of exposure increased. After 96 hours, mortality ranged from 0% in the 5.21 ppm test concentration to 100% in the 160.90 ppm test concentrations. No mortality occurred in the control during the test. The calculated LC ₅₀ value was 78 ppm with a 95% confidence limit of 65 to 92 ppm. The no-observed-effect concentration after the 96 hour exposure was 5.21 ppm (tests were performed in seawater).	OTS0510507 51 FR 16203; 5/1/86

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Acrylamide	79-06-1	EECTOX Chronic/aquatic toxicity (Voluntary test)	Non-TSCA Protocol/ Guideline (see docket# OPTS- 47003B)	Mysid shrimp	28 day (life-cycle), flow-through	0.06 to 4.40 mg/L	Not specified	Mortality at the highest concentration (4.40 mg/L) reached 45%, which was statistically greater than the controls. The test animals reproductive cycles were not adversely affected by any of the test concentrations. There were no significant delays in time of release of the first brood at any of the test concentrations.	OTS0510508 51 FR 39799; 10/31/86